

ABSTRACT
CONTROLLING EXECUTION OF A BLOCK OF PROGRAM
INSTRUCTIONS WITHIN A COMPUTER PROCESSING SYSTEM

A data processing apparatus 2 is provided with an execute block instruction EMB which specifies a memory location of a block of program instructions to be executed as well as the length of that block of program instructions. When the end of that block of program instructions has been reached as tracked in response to the specified length value, a return to the main program flow is triggered. The instruction decoder 14 can include a block counter register 22 to keep track of the position within the block of program instructions being called. The block of program instructions are fetched by a prefetch unit 16 into the instruction pipeline 12 following the execute block instruction and are treated as having a program counter value corresponding to the execute block instruction whilst the block counter value keeps track of their separate positions within the block of program instructions.

[Figure 2]